

## STUDY THE EFFICACY OF BRUHATYADI YAPAN BASTI IN SANDHIGATA VATA (OSTEOARTHRITIS) WITH SPECIAL REFERENCE TO JANU SANDHI (KNEE JOINT)

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### ABSTRACT

Sandhigata Vata is the commonest form of articular disorder. It is a type of Vatavyadhi which mainly occurs in Vriddhavastha due to Dhatukshaya, which limits everyday activities such as walking, dressing, bathing etc. thus making patient disabled / handicapped. In Ayurvedic classics, our Acharya have given so many special therapeutic procedures for specific disease along with thousands of medicaments Acharya Charkas has mentioned common treatment for Vatavyadhi i.e. repeated use of Snehana(External oleation), Svedana(fomentation), Basti(medicated enema) and mrudivirechana(mild purgation).<sup>1</sup> Basti is prime treatment for various vata disorders which includes *Sandhigat vata*.<sup>2</sup> Bruhatyadi *Yapan basti* mentioned in Charak siddhistan for management of various *Vata* related disorders.<sup>3</sup> **Aim:** To evaluate the efficacy of Bruhatyadi *Yapan Basti* in *Sandhigata vata*. **Materials & Method:** In the present study, 30 patients of *Sandhigata Vata* were given Bruhatyadi *Yapan Basti*. Subjective assessment by classical symptoms *Sandhi Shoola*, *Sandhi Shotha*, *Vatapurna Druti Sparsha*, *Graha* (Restricted movement), Oxford pain chart, WOMAC (Western Ontario and McMaster Universities Osteoarthritis Index) index of O.A. for knee by Visual analog scale, Walking time for 10 meters were graded according to their severity. **Result:** Significant (P<0.05) result were found in all cardinal symptoms of *Sandhi Shoola*, *Sandhi Shotha*, *Vatapurna Druti Sparsha*, *Graha* (Restricted movement). **Conclusion:** Bruhatyadi *Yapan Basti* was significant in the subjective symptoms of *Sandhigata Vata*.

**Keywords:** *Sandhigat vata*, Osteoarthritis, Bruhatyadi *Yapan Basti*.

### INTRODUCTION

Today is the era of modernization and fast life. Everybody is busy and living stressful life. Changing of life style of modern human being has created several disturb-

ances in his biological system. Advancement of busy, professional and social life, continuous work in one posture and overexertion, With reference to the Dinacharya and Rutu-

charya the norms of daily routine in present day situation are quite contradictory. With more and more use of vehicles, disturbed eating habits, unnecessary excessive traveling, improper time schedule of sleep and work all have lead to increase in the Vata dosha.<sup>4</sup> Sandhigat Vata is one of the end result of above routine. Faulty dietetic habits and irregular life style is responsible for early degenerative changes in bodily tissue and play a vital role in the manifestation of such degenerative disorder. In this way, this disease is now becoming a significant threat to the working population. The effect on Sandhi by Prakupita Vata is the main phenomenon in Samprapti of Sandhigat Vata. Out of Panchkarmas , Basti Chikitsa is most important as it radically pacifies the vitiated Vata; the sole Dosha, responsible for the movements of all Dosha, Dhatu and Mala within the body. Also it is having action on Pakvashaya which is main site of Vata dosha.<sup>5</sup> Conclusively Basti, indeed, is the half of the entire management of diseases. Therefore ,in order to study effectiveness of Yapan Basti and also treat the patients of Janu Sandhigata Vata , I have used Brihtyadi yapan basti. The contents of brihatyadi yapan basti found to decrease vitiated vata dosha as well as provide strength to “Janu Sandhi” and thus helps to prevent further disorders. Hence it is well worthy to study efficacy of Brihatyadi yapan basti in Sandhigata vata.

**AIM:** - Study the efficacy of Brihatyadi Yapan Basti in Sandhigata Vata with special reference to Janu Sandhi.

**OBJECTIVES:-**

1. To study the concept of sandhigata vata with special referenceto Janu Sandhi.
2. To study the standardization of ingredients as well as finished product (Brihatyadi Yapan).
3. To evaluate the role of Brihatyadi Yapan Basti in sandhigata vata with special reference to Janu Sandhi.

**MATERIALS AND METHODS:-**

- Type of study: Randomized single group open labeled clinical study
- Place of study: OPD and IPD at S.T.R.H. Pune.
- Duration of study: study was conducted during March 2012- May 2013

**SELECTION OF PATIENTS** Total 30 patients of Janu Sandhigata vata who attended were selected, enrolled irrespective of sex, religion, economical status, education, occupation etc.

**INCLUSION CRITERIA**

1. Patients having textual symptoms of Sandhigata vata with special reference to Janu sandhi will be taken as a subject to study.<sup>6</sup> i)Sandhi Shoola(Joint pain) ii)Sandhi Shotha(Joint effusion) iii)Vatapurna Druti Sparsha iv)Graha (Restricted movement)
2. Sex: Male & Female
3. Age: 30 to 70Years
4. Patient who will give written consent

**EXCLUSION CRITERIA:**

- Patients unsuitable for basti as referred by Charaka as follows: Ajeerna, Atisnigdha, Peetasneha, Alpagni, Atidurbala, Atikrisha, Shramklanta, Garbhin, Shwass, Kasa, Praseka, Baddhagudodara, Chidrodera, Adhaaman, Alasaka, Visuchika,

Prameha, Pandu, Kamala, Arsha, Pratishya, Peenasa, Atisara, Krimi.<sup>7</sup>

- Patients with other joints deformities or diseases which are not related to Janu Sandhigata vata, such as Amavata, Vatarakta.
- Fracture of Knee joint, and needs surgical care will be excluded.
- Auto immune diseases –like SLE, Ankylosing Spondylitis
- Neoplasms
- Permanent joint damage.
- Known cases of Cardiac disease, Pulmonary TB, Pregnancy, DM, Paralysis, HIV, Neurological disorder etc.
- Chronicity for more than 10 years
- Having severe crippling deformity.
- Age <30 yrs. & >70 yrs.

#### **WITHDRAWAL CRITERIA:**

- a) Occurrence of Serious adverse events.
- b) The investigator feels that the protocol has been violated or patient has become incorporative.
- c) Further continuation of the study is likely to be detrimental to health of the patients.
- d) Patients absent for continuous 2 follow-ups will be considered as dropped out from this project.
- e) The patients are not willing to continue the trial.

**MEDICATION AND TREATMENT PERMITTED:** Treatment for minor ailments requiring medication for less than 3 days. Rescue of medication in the form of life- saving drugs, antibiotics, I.V. fluids may be permitted if 2 experts agree on their necessity.

#### **TREATMENT NOT PERMITTED:-**

During the trial any medication like

- A) Corticosteroids, Analgesic, Local application containing steroid & analgesic
- B) Self medication.
- C) Narcotics are not permitted.
- D) Note: Upon questioning if, any subject is found to be using medications in non-permitted categories he will be withdrawn from the trial automatically.

#### **METHOD OF ADMINISTRATION :-**

Form: Yapan basti<sup>8</sup> Dose-240 ml

Duration of therapy- 7 days

Follow up- on day 7 and day 14

**PROCEDURE** Purvakarma- Sthanik snehan (Local oleation) and Swedana (Medicated fomentation) Position- left lateral Pradhankarma- Basti-dana Pashchatakarma-Tadana karma and Uttana position.

#### **METHOD OF PREPARATION OF BASTI :-**

A) Preparation of Ksheerapak : Brihati, Kantakari, Shatavari and Guduchi in Bharad form with total weight of 12-15 gm, 240 ml milk and 240 ml water was added and boiled till water gets evaporated.

B) Basti was prepared by mixing the drugs in order.

1)Honey- 20 ml. 2)Saindhav – 5gms

3)Sneha : i)Til tail -15ml, ii)Goghrita – 15ml.4)Kalka : i) Yashti, ii) Pippali, iii)Madanphala 5)Ksheerapaka :240 ml.

Proper titration was done after addition of ingredient.

**METHOD OF ASSESSMENT:-** Detailed case papers were prepared incorporating all signs & symptoms of Sandhigata vata. Pain

was scored according to severity & involvement of knee joint. Oxford pain chart. WOMAC (Western Ontario and McMaster Universities Osteoarthritis Index) index of O.A. for knee by Visual analog scale, Walking time for 10 meters.

Gradation of symptoms

### 1. Assessment of Shotha

In this study shotha of janusandhi was measured at 3 levels in cms.

Level A – 2 inches (5.08 cm) above midpatteler point

Level B - At midpatteler point

Level C – 2 inches (5.08 cm) below midpatteler point

### 2. Assessment of Sandhi Graha-

It is a subjective parameter which can sometimes be objective. Because when a patient can move his leg up to a certain limit and then suddenly further movement of the joint is not possible because of the stiffness then it is easy to decide the grade of the stiffness. The angle of the joint up to which the joint moves can be measured for assessment in such condition . But when a patient feels stiffness in all positions of the joint and can move it anyhow but with difficulty then how can angle be measured? Moreover in the case of amavata Graha markedly varies with time to time and also in the nature. So to avoid the fallacies and to make it an objective criterion following gradation was adopted-

Sandhi Graha	Grade
None	0
Mild	1
Moderate	2
Severe difficulty due to stiffness	3
Severe stiffness more than 10 mins.	4

### 3. Assessment of Crepitus: It is done with following gradation -

Grade	Condition
0	No Crepitus
1	Palpable Crepitus
2	Palpable+Audible Crepitus
3	Always audible

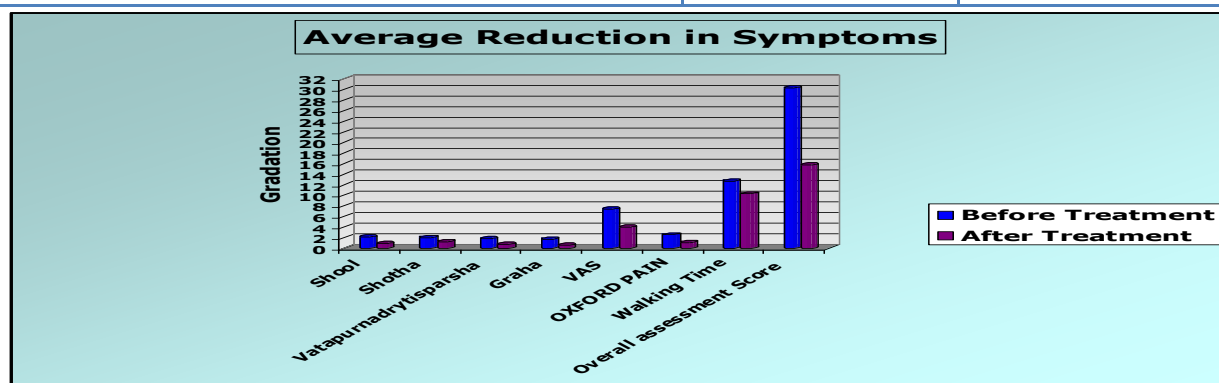
### 4. Akunchana Prasaranayo Vedana Assessment-

Vedana	Grade
No pain	0
Pain without winching of face	1
Pain with winching of face	2

<b>Prevent complete flexion</b>	3
<b>Does not allow passive movement</b>	4

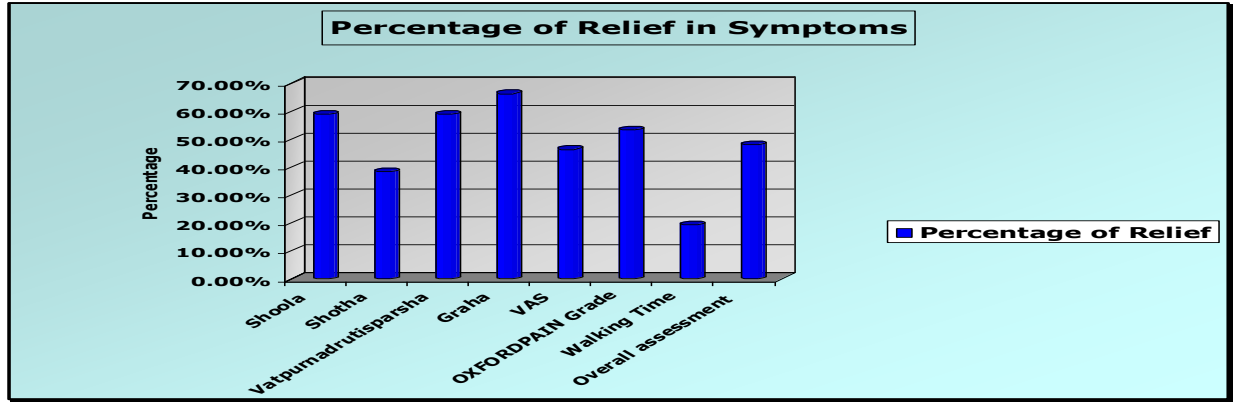
**OBSERVATION: SYMPTOM WISE ASSESMENT BEFORE AND AFTER TRETMENT:**

Symptoms	BT	AT
<b>Shool</b>	2.1167	0.8667
<b>Shotha</b>	2	1.2333
<b>Vatapurnadrytisparsha</b>	1.7833	0.7333
<b>Graha</b>	1.7333	0.5833
<b>VAS</b>	7.4	3.9667
<b>OXFORD PAIN</b>	2.5333	1.0667
<b>Walking Time</b>	12.733	10.2667
<b>Overall assessment</b>	<b>30.299</b>	<b>15.7167</b>



Symptoms	% of Relief
<b>Shoola</b>	59.05%
<b>Shotha</b>	38.335%
<b>Vatpurnadrutisparsha</b>	58.87%
<b>Graha</b>	66.34%
<b>VAS</b>	46.39%
<b>OXFORDPAIN GRADE</b>	53.33%
<b>Walking Time</b>	19.37%
<b>Overall assessment Score</b>	48.13%

**Relief in Percentage**



## DISCUSSION

The objective of the dissertation was to study the efficacy of Bruhatyadi Yapan Basti in Janusandhigatvata. In this clinical study, 30 patients were registered. Clinical trials were carried out methodically & proper record of the observations was maintained. All the observations were observed thoroughly. The data is discussed as follows.

- 1. Age:-** According to age, highest number of patients i.e. 9(30%) of were in the age group of 51-60yrs, followed by 8(26.67%) in the age group of 41-50yrs . Maximum patients were belonging to 40-60 years. It can be said that this age group correlates with” Madhyam vaya” of Hani stage (i.e. 40-70yr) according to Sushruta. Degenerative process starts at this age.
- 2. Gender:** - In this study 17(56.67%) patients were female & 13 (43.33%) patients were male. According to this observation it can be said that sandhigatavata is most common in female.

- 3. Occupation:** - The occupation of the patients indicate that 14(46.67%) of the patients were housewives, 9(30%) patients were doing some job mostly sedentary in nature and 7(23.33%) patients were doing labour work. Majority of the housewives are busy in some activity or the other. Their work profile includes all most all activities releted to housekeeping. They may have to work in some odd postures.This excessive activity & Vishamcheshta may lead to Dhatukshya resulting in to Vataprakopa there by manifesting Sandhigatvata .In patient having sedentary jobs due to lack of activity, thereby putting on weight again lead to Dhatukshya &then Sandhigatvata.
- 4. Diet:** - Maximum number of patients i.e. 18(60%) were taking mixed type of diet & 12(40%) patients were vegetarians. This does not seem to have any important role to play as far as sandhigatavata is concerned because Ahara is responsible when it is not taken in proper Matra, Agni, and Kala. As the sample size is small, the observations are not capable

to conclude the disease is more prone to patients taking any specific type of diet.

**5. Prakruti:-** All the patients in this study were having Dwandwaja prakruti. Maximum number of patients i.e. 12(40%) were having vata pitta while 6(20%) having vata kapha prakruti, & 4(13.33%) were having kaphavataj prakruti. Thus it can be concluded that vata dominant patients suffer more from sandhigata vata & prognosis may be poor in them as prakruti & dosha involvement is same. In patients having kapha pittaj prakruti prognosis may be good as prakruti & dosha involved are not same.

**6. Malpravartan (Bowel Habit):** 21 patients (70%) were having irregular Malpravartan, while 9 (30%) patients had regular Malpravartan. Irregular Malpravartan, constipation is considerable as factor, as it obstructs the prakrita gati of apana vayu & creates the habit of vegodirana, which vitiates vayu, agni as well as purishadhara kala.

**7. According to symptoms:-**

- 1) Shoola : According to statistics, Mean of reduction in Shoola was 1.25 & Percentage of relief was 59.05%.
- 2) Shotha : According to statistics, Mean of reduction in Shotha was 0.767 and Percentage of relief was 38.335%.
- 3) Vatpurnadrutisparsha : According to statistics, Mean of reduction in Atopa was 1.05 Percentage of relief was 58.87%.

- 4) Graha : According to statistics, Mean of reduction in Graha was 1.149 Percentage of relief was 66.34%.
- 5) VAS : According to statistics, Mean of reduction in VAS was 3.43 Percentage of reduction in VAS was 46.39%.
- 6) OXP: According to statistics, Mean of reduction in OXP was 1.46 Percentage of reduction in OXP was 57.89%.
- 7) Walking time: According to statistics, Mean of reduction in walking time was 1.46; Percentage of reduction in OXP was 19.37%.

## CONCLUSION

1. The present therapy was aimed to establish the efficacy of Brihatyadi Yapan Basti in nirama avastha of Janusandhigata Vata.
2. Janu Sandhigata vata is more common in females.
3. Efficacy of Brihatyadi Yapan Basti in nirama avastha of Janusandhigata Vata is statistically highly significant as  $p < 0.0001$
4. Janu Sandhi shoola reduced up to 59.05% in Bruhatyadi Yapan Basti.
5. Overall assessment score shows 48.13% relief in all symptoms of janusandhigata vata by Bruhatyadi Yapan Basti.
6. Bruhatyadi Yapan Basti is also effective in Graha, Shotha, Vatapurnadrutisparsha.
7. Brihati, Kantakari, Guduchi, Madanphala, pippali, Sesame oil included in the Basti are of Ushna Veerya and also having Deepana, Pachana and Kapha Vata Shamana property. Other ingredi-

ents like Grihta, Ksheera, Yastimadhu, Shatavari are Balya and Brihana. All these together act to resolve the Samprati of Sandhigata Vata and prevent the recurrence of the disease.

8. No any adverse effect was found during or after treatment.

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